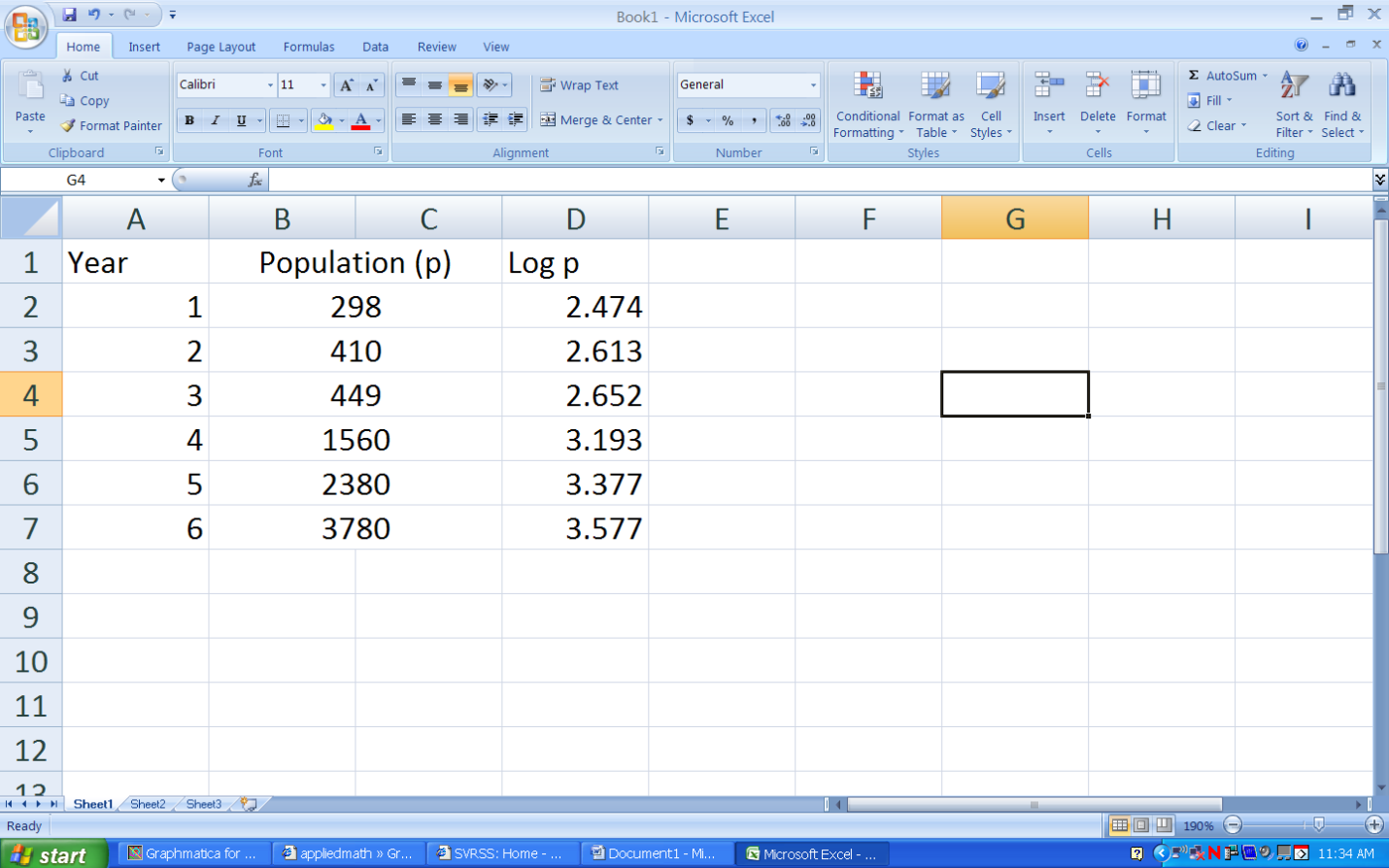
**Lesson 17**

This is how to do exponential functions on a graphing calculator. Heres a example question..

The population of a once endangered animal species has been increasing. From the data in the table, use a graphing calculator to find a linear equation that describes the relationship between *t* and log *P.* Then find exponential relationship between *t* and *p*.



1. Linear: log *P*= 298*t*+3780

Exponential: *P*= 2.474(3.577)^*t*

1. Linear: log *P*= 2.15*t*+0.238

Exponential: *P*= 1.73(140)^*t*

1. Linear: log *P*= 0.238*t*+2.15

Exponential: *P*= 140(1.73)^*t*

1. Linear: log *P*= 140*t*+1.73

Exponential: *P*= 0.238(2.15)^*t*

To solve this problem you press **stat** assuming your calculator is on, then you press **enter**. From there you will be in a list. Under the table L1 you enter in your first set of number on the table. So you enter 1 through six into the table. Then you go to the other side(L2), and enter in your second set of numbers, Which are 298, 410, 449, 1560, 2380, 3780. In that order. Then hit **stat** and then **right arrow key**, then press **0**. It should say expreg on the screen. Press **enter**. On the screen there should be a bunch of random numbers, the formula is at the top of the screen, it says y=a\*b^x.

The other numbers are a=140.0263535, b=1.731938376, and r^2= .9413275281. The last one is r=.9702203503. then you plug the numbers into the formula and you get y=140.026\*(1.73)^*t*. Which means the right answer is C).